

a current problem and by distributing these guidelines they hope to decrease or stop the increase in development of resistance to currently available antibiotics. **METHODS:** Strong Square, LLC has developed an integrated database of medical, pharmacy and professional claims from seven participating health plans in Washington state for the purposes of measuring the impact the previously distributed antibiotic prescribing guidelines. Guideline adherence measurements included: 1) antibiotic prescribing rates by diagnosis; and 2) antibiotic drug formulary compliance. Diagnoses included in the data set are: Acute Otitis Media (AOM), Acute Pharyngitis (AP), Acute Uncomplicated Sinusitis (AUS), Community Acquired Pneumonia (CAP) and Uncomplicated Acute Bronchitis (UAB). The participating health plans, which include fee-for-service, HMO, managed care and state funded Medicaid programs, represent 87% of Washington state's population, 7,524 licensed primary care prescribers and 220,641 outpatient antibiotic treatment episodes from January 1, 2000 through September 30, 2002. **RESULTS:** The percentage of antibiotic diagnoses with antibiotic prescribing varied among the different types of respiratory tract infections. Prescribing rates are as follows: AOM, 48.4%; AP, 39.7%; AUS, 62.3%; CAP 48.7%; UAB, 54.3%. When antibiotic drugs were used, formulary compliance was also measured: AOM, 84.0%; AP, 53.3%; AUS, 68.1%; CAP 60.3%; UAB, 54.6%. **CONCLUSIONS:** Providing prescribers feedback measures for the guidelines they are expected to follow is a logical step towards improving rates of guideline adherence. Integrated reporting of diagnosis and drug data over a broad geographic region allows us to provide comprehensive, interpretive feedback to prescribers regarding their antibiotic prescribing patterns.

PIN6

INDICATORS OF ANTIBIOTIC USE IN PRIMARY HEALTH CARE OF REPUBLIC OF SRPSKA

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The WHO developed the many indicators to evaluate the rational use of drug, as following: availability of drug, cost of drug therapy, drug cost of antibiotics in ratio of all drug cost etc. **OBJECTIVES:** The purpose of research was to analyse the antibiotic use in primary health care of part of Republic of Srpska (RS) with commonly and complementary indicators. **METHODS:** A retrospective analysis of prescribing of antibiotic in setting of data centre of Rp evaluation of Community Pharmacy chain of Banja Luka (BL)(RS), was conducted using the 1990, 1994, 1998 and 2000 survey. The analysis covered the four main groups of antibiotics by indicators: defined daily dosage (DDD)/1000 inhabitants/days; % of antibiotics and cost vs. all drugs. The comparison was done with survey of "reference case" in Serbia and Montenegro

(SM) and Clinical-hospital centre of BL (ChcBL). Fischer test and SD statistical method was used and multivariate analyses, as well. **RESULTS:** The study included the 17 retail pharmacy settled in area of BL with the total population of ~350,000 people. The average use of antibiotic is 42% (32%, 60%, 37%, 40%, respectively to time frames) and higher than the use in SM (33%) and similar to use in ChcBL. The structural analysis showed that the penicillin's and cephalosporin's were the two main prescribing antibiotic groups. In deep multivariate analyses we recognized the radical changes in prescribing practices after the year 2000 (increasing use of amoxicillin and combination, instead of ampicillin). The in-services training of health workers (PHARE program) and the inclusion of combination in the local reimbursement list have had an important role on the former results. **CONCLUSIONS:** Complementary indicators of use of antibiotics in the primary health care systems of BL showed that the rational antibiotic use approach was present, after strong drug policy were developed and implemented.

PIN7

AN ANALYSIS OF IN-VITRO UROPATHOGEN SENSITIVITY DATA TO UPDATE THE GUIDELINES FOR THE EMPIRIC TREATMENT OF UNCOMPLICATED URINARY TRACT INFECTION IN ADULT WOMEN IN A MANAGED CARE SETTING

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OBJECTIVES: To utilize urine culture uropathogen sensitivity data to update a Health Maintenance Organization's (HMO) guideline for the choice of antibiotic drug in the treatment of uncomplicated urinary tract infection in adult women. **METHODS:** Data on the sensitivity of uropathogens was collected for all urine cultures performed from January 2000 to February 2003 in the Leumit Health Fund, an HMO that provides medical coverage to 670,000 members throughout the state of Israel. The rates of resistance to the commonly orally-administered antibiotics was analysed for the observed uropathogens. **RESULTS:** The final data set consisted of 1,860,791 positive cultures. E. Coli was the most frequently observed uropathogen (47% of all positive cultures). The rates of resistance observed in 2002 were 29% for TMP-SMX, 10% for ofloxacin and cefazolin, and <5% for nitrofurantoin, cefuroxime, and amoxicillin + clavulanic acid. A decrease in resistance to amoxicillin + clavulanic acid was observed during the study period, which may be attributed to the successful implementation of an administrative intervention by the HMO which resulted in a significant decrease in the prescribing of this drug. Pseudomonas Aeruginosa, which accounted for ~7% of positive cultures was found to be resistant